

**CURRICULUM VITAE  
LAURA Y. MERCURIO, MD**

Business Address:

Department of Emergency Medicine  
Alpert Medical School of Brown University  
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EDUCATION

Undergraduate	College at Georgetown University Biology of Global Health, B.S. 2006-2010, magna cum laude
Medical School	Alpert Medical School of Brown University Doctor of Medicine 2010-2014
Other Advanced Degrees	Brown University School of Public Health, Certificate in Clinical and Translational Research (CTR) 2018-2019

POSTGRADUATE TRAINING

2014 - 2017	Brown University, Residency in Pediatrics
2017- 2020	Brown University, Fellowship in Pediatric Emergency Medicine

POSTGRADUATE HONORS AND AWARDS

2021	Rising Star Faculty Award Brown Emergency Medicine
2019	Rising Star Fellow Brown Emergency Medicine
2017	Pediatric Residency Teaching Award,

Hasbro Children's Hospital

PROFESSIONAL LICENSES AND BOARD CERTIFICATION

LICENSURE

2017 - Present American Board of Pediatrics, General Pediatrics

CERTIFICATION

2014 - 2023 Pediatric Advanced Life Support (PALS)\*  
2014 - 2023 Basic Life Support (BLS)  
2018 - 2020 Advanced Cardiac Life Support (ACLS)  
2017 - 2020 Advanced Trauma Life Support (ATLS)

ACADEMIC APPOINTMENTS

2020 - Present **Assistant Prof of Emergency Medicine & Pediatrics**  
Alpert Medical School of Brown University

2019 - 2020 **Chief Fellow, Pediatric Emergency Medicine**  
Hasbro Children's Hospital, Providence, RI

2017 - present **Instructor, Department of Pediatrics**  
Alpert Medical School of Brown University

HOSPITAL APPOINTMENTS

2020 - Present **Attending Physician**  
Pediatric Emergency Medicine  
Hasbro Children's Hospital, Providence, RI

2017 - 2020 **Fast Track Pediatrician**  
Pediatric Emergency Medicine  
Hasbro Children's Hospital, Providence, RI

2014-2017 **Pediatric House Officer**  
Hasbro Children's Hospital, Providence, RI

HOSPITAL COMMITTEES



2011-2012 **VP of School Events & Community Service**  
Alpert Medical School of Brown University

#### MEMBERSHIP IN SOCIETIES

2014 – present American Academy of Pediatrics  
C'2017 Resident Representative

2017-2018 Society of Academic Emergency Medicine (SAEM)

2010-2014 American Medical Association  
AMA Region 7 Council for Community Service (2011-  
2012)  
Coordinator, American Medical Association's Miles for  
Healthier Lifestyles (Apr 2011)

#### PUBLICATIONS LIST

##### ORIGINAL PUBLICATIONS IN PEER-REVIEWED JOURNALS

Pourian J, Coghlin DT, Has P, **Mercurio L**. Sexual Orientation and Gender Identity Documentation among Adolescents and Young Adults in the Primary Care and Adolescent Clinic. *RIMJ*. September 2023.

**Mercurio LY**, Corwin D, Kaplan R, Ellison A, Casper C, Kupperman N, Kline J. BEside Exclusion of Pulmonary Embolism in Children without Radiation: a National Study of the Pediatric Emergency Care Applied Research Network (PECARN) Res Pract Thromb Haemost . 2023 Jan 14;7(2):100046. doi: 10.1016/j.rpth.2023.100046. eCollection 2023 Feb.

**Mercurio LY**, Pou S, Duffy SJ, Eickhoff CE. Risk Factors for Pediatric Sepsis in the Emergency Department: A Machine Learning Pilot Study. *Pediatric Emergency Care* 39(2):p e48-e56, February 2023. DOI: 10.1097/PEC.0000000000002893

Ko ER, Henao R, Frankey K, Petzold E, Isner PD, Jaehne AK, Allen N, Gardner-Gray J, Hurst G, Pflaum-Carlson J, Jayaprakash N, Rivers EP, Wang H, Ugalde I, Amanullah S, **Mercurio L**. et al. Prospective Validation of a Rapid Host Gene Expression Test to Discriminate Bacterial and Viral Infection (RADICAL-2). *JAMA Netw Open*. 2022;5(4):e227299. doi:10.1001/jamanetworkopen.2022.7299

Kelley MN, **Mercurio L**, Tsao HS, et al. Excellence in Communication and Emergency Leadership (ExCEL): pediatric primary and secondary survey in trauma workshop for residents. *MedEdPORTAL*. 2021;17:11079. [https://doi.org/10.15766/mep\\_2374-8265.11079](https://doi.org/10.15766/mep_2374-8265.11079)

**Mercurio L**, Hill R, Duffy S, Zonfrillo MR. Clinical Practice Guideline Reduces Evaluation and Treatment for Febrile Infants 0 to 56 Days of Age. *Clin Pediatr (Phila)*. 2020;59(9-10):893-901. doi:10.1177/0009922820920933

Wing R, Tsao H, Hand V, **Mercurio L**, Carillo M, Brown L, & Kelley M. Excellence in Communication and Emergency Leadership (ExCEL): pediatric first 5 minutes workshop for residents. *MedEdPORTAL*. 2020;16:10980. [https://doi.org/10.15766/mep\\_2374-8265.10980](https://doi.org/10.15766/mep_2374-8265.10980)

Gill N, Gjelsvik A, **Mercurio LY**, Amanullah S. Childhood Obesity is Associated with Poor Academic Skills and Coping Mechanisms [published online ahead of print, 2020 Sep 4]. *J Pediatr*. 2020;S0022-3476(20)31129-X. doi:10.1016/j.jpeds.2020.09.004

**Mercurio LY**, Taylor LE, & Jarman, AF. Neurosyphilis: Old Disease, New Implications for Emergency Physicians. *Clinical Practice and Cases in Emergency Medicine*. 2020; 4(1). <http://dx.doi.org/10.5811/cpcem.2019.9.43871>

**Mercurio LY**, Amanullah S, Gill N, Gjelsvik A. Children with Attention Deficit Hyperactivity Disorder Engage in Less Physical Activity. *J Atten Disord*. 2019; Dec 14:1087054719887789. doi: 10.1177/1087054719887789

Capraro G, Etebari C, Luchette K, **Mercurio LY**, Merck D, Kirenko I, Roque M, van Zon K, Kobayashi L. Comparison of non-contact, photoplethysmographic acquisition of heart rate and respiratory rate against traditional contact monitors in healthy volunteers. *Proceedings of the Biomedical Circuits and Systems Conference (BioCAS)*. 2018; Oct.17-19; Cleveland, OH: Piscataway: IEEE; c2018.

Marano R, **Mercurio LY**, Kanter R, Doyle R, Abuelo D, Morrow E, Shur N. Risk assessment models in genetics clinic for array comparative genomic hybridization: clinical information can be used to predict the likelihood of an abnormal result in patients. *J Pediatr Genetics* 2013; 2(1): 25-32.

#### OTHER PEER-REVIEWED PUBLICATIONS

Cohen D, Du K, Mitra B, **Mercurio LY**, Rekabsaz N, Eickhoff C. "Inconsistent Ranking Assumptions in Medical Search and Their Downstream Consequences". Short paper, Annual Conference of the Association for Computing Machinery Special Interest Group in Information Retrieval. July 2022. DOI 10.1145/3477495.3531898

**Mercurio LY** (2018). *NEJM Knowledge+*. Authored 4 questions in Pediatric Emergency Medicine for a comprehensive lifelong learning product from NEJM Group aimed at trainees at all levels; used nationally and internationally.

**Mercurio LY** Calculated Decisions: Rochester Criteria for Febrile Infants. *Pediatr Emerg Med Pract*. 2019;16(Suppl 7):CD1-CD3. PMID: 31294949.

## BOOKS AND BOOK CHAPTERS

**Mercurio LY & Duffy SJ:** Hypertension, In: S Selbst, K Cronan (Eds.) Pediatric Emergency Medicine Secrets, 4th Addition, Philadelphia, Hanley and Belfus, Inc. 2022

**Mercurio LY & Wing R.** Fever in the First 3 Months of Life Algorithm. In Domino FJ (30<sup>th</sup> Edition) *The 5-Minute Clinical Consult*. 2020, 2022. Philadelphia, PA: Lippincott Williams and Wilkins.

**Mercurio LY.** Chromosomal Abnormalities. *Step up to Pediatrics*. Shah S, Roman JC, Alverson B (eds), 1<sup>st</sup> ed. Baltimore (MD): Lippincott Williams & Wilkins. 2013.

## OTHER NON-PEER REVIEWED PUBLICATIONS

Rudman W, Merullo J, **Mercurio LY**, Eickhoff CE. AcQUA: Anomaly Classification with Quasi-attractors. medRxiv 2022.08.31.22279436.

**doi:** <https://doi.org/10.1101/2022.08.31.22279436>

**Mercurio LY.** Ghost in the Machine: Doctors can help design better medical records. *Brown Medicine*. Winter 2016. Available at:

<http://www.brownmedicinemagazine.org/blog/article/ghost-in-the-machine/>

**Mercurio LY.** Cultural shifts: Have duty hour restrictions improved the resident experience? *Brown Medicine*. Spring 2016. Available at:

<http://www.brownmedicinemagazine.org/blog/cultural-shifts/>

## PUBLICATIONS SUBMITTED OR IN PREPARATION

Abdullahi TA, **Mercurio L**, Singh R, Eickhoff CE. Retrieval Based Diagnostic Decision Support. Submitted to JMIR June 2023.

**Mercurio, LY.** Garcia AG, Eickhoff CE. Natural Language Processing Model to Identify Substance Use in the Medical Narrative: A Pilot Study in MIMIC. Planned JAMIA submission 2023.

Pal K, Bahrainian SA, Eickhof CE, **Mercurio L**. Automated Summarization and Generation of Medical Discharge Reports. Submitted to JMIR May 2023.

Mercurio LY, Winn T, Baird J, Amanullah S. Adverse Childhood Events (ACE) Increase Substance Use Among Adults in Rhode Island: A Machine Learning Approach. Planned submission to RIMJ.

## ABSTRACTS

### International:

Cohen D, Du K, Mitra B, **Mercurio LY**, Rekabsaz N, Eickhoff CE. Inconsistent Ranking Assumptions in Medical Search and their Downstream Consequences. Special Interest Group on Information Retrieval (SIGIR) 2022: Madrid, Spain.

Rudman W, Merullo J, **Mercurio LY**, Eickhoff C. ACQuA: Arrhythmia Classification with Quasi-Attractors. Poster Presentation. Computing in Cardiology (CinC) International Conference: Brno, Czech Republic. Sep 2021.

### National:

**Mercurio LY**, Winn T, Xu C, Baird J, Amanullah S. Strongly Associated but not Predictive: Machine Learning for Adverse Childhood Experiences & Adult Substance Use Disorders. Lightning Oral Presentation. SAEM. May 2023.

**Mercurio LY**, Hill R, Duffy S, Zonfrillo MR. Clinical practice guidelines reduces evaluation and treatment for febrile infants. Platform Presentation, New England Regional Meeting of the Society for Academic Emergency Medicine; Poster Presentation, Pediatric Academic Societies' 2018 Annual Meeting March 2019, May 2019.

**Mercurio LY**, Amanullah S, Gill N, Gjelsvik, A. Attention Deficit Hyperactivity Disorder is Associated with Decreased Physical Activity in School-Aged Children. American Academy of Pediatrics National Conference and Exhibition. Nov 2018.

### Regional/Local:

Pourian J, **Mercurio L**. Sexual Orientation and Gender Identity Documentation among Adolescents and Young Adults in the Primary Care and Adolescent Clinic. Brown University Spring Research Symposium, May 2022.

Kobayashi L, Capraro GA, Etebari CA, Luchette KR, **Mercurio LY**, Merck DC. Comparison of non-contact infrared thermography and traditional contact methods for acquisition of body temperature in healthy volunteers. Society for Academic Emergency Medicine Annual National Meeting 2017 and Northeast Regional Meeting. Mar 2017.

Capraro GA, Etebari CA, Luchette KR, **Mercurio LY**, Merck DC, Kirenko I, Roque M, van Zon K, Kobayashi L. Comparison of non-Contact, video photoplethysmographic acquisition of heart rate and respiratory rate against traditional contact monitors in resting and exercising healthy volunteers. Society for Academic Emergency Medicine Northeast Regional Meeting. Mar 2017.

## INVITED PRESENTATIONS

### *National:*

- 2022 “Pediatric Fractures & Hospitalist Procedures”  
AAP PREP Pediatric Hospital Medicine Course  
Denver, Colorado
- 2021 “Intersecting Machine Learning & Clinical Medicine”  
Pediatric Emergency Care Applied Research Network (PECARN)  
Future Investigator Conference  
Virtual Conference

### *Regional:*

- 2021 “Bioinformatics, Machine Learning & Pediatric Medicine”  
Graduate Biostatistics Lecture Series,  
University of Rhode Island, Kingston, RI
- 2021 “The Crashing Infant”  
Emergency Medicine Residency Lecture Series,  
Kent Hospital, Warwick, RI
- 2021 “Infant Fever”  
Emergency Medicine Provider Lecture Series,  
Windham Hospital, New England Medical System (NEMS)  
Windham, CT
- 2020 “Pediatric HEENT/Neurologic Emergencies”  
Emergency Medicine Residency Lecture Series,  
Kent Hospital, Warwick, RI

### *Local:*

- 2022 “Infant Fever”  
Pediatric Emergency Medicine Advanced Practice Provider  
Fellowship  
Lifespan Medical System, Providence, RI
- 2022 “Machine Learning & Research”  
Dep of Emergency Medicine Research Course,  
Brown University, Providence RI

2018-2020	“Pediatric Abdominal Emergencies” Pediatric Residency Program Lecture Series Brown University, Providence, RI
2019	“Pediatric HEENT/Neurologic Emergencies” Emergency Medicine Residency Lecture Series, Brown University, Providence, RI
2017, 2018	“Infant Fever” Pediatric Residency Program Lecture Series Brown University, Providence, RI
2016	“Autism Spectrum Disorder” “ADD & ADHD” “Examination of the School-Aged Child” Physician Assistant Program Lecture Series Johnston & Wales University, Providence, RI
2015-2016	Invited Lecturer, Physician Assistant Program Bryant University, Smithfield, RI Upper and Lower Genitourinary Disorders

## GRANTS

### Active

Academic Assessment Grant 2022 – Category II (Salary Support). Brown Physicians Incorporated. “Adolescent Substance Use in the Emergency Department (ASCEND)”. \$100,000 (Role in Grant: principal researcher).

Institutional National Research Service Award (T32). HIV and Other Infectious Consequences of Substance Abuse. National Institute of Health: National Institute on Drug Abuse. Grant #2T32DA013911-16A1, (Flanigan, Rich, Miriam Hospital, PI), 40% FTE, \$513,287, (Role in Grant: post-doctoral researcher.)

BEside Exclusion of Pulmonary Embolism in children without Radiation (BEEPER). National Institute of Health (NIH): National Heart, Lung, and Blood Institute (NHLBI). Grant# 1R01HL148247-01A1, (Kline, Ellison, PI), Effort only, \$1,937,790. (Role in grant: Site Principal investigator, Hasbro Children’s Hospital).

### Complete

Advance K Scholar Career Development Program. Advance Clinical Translational Research (CTR) Program at Brown University, (Rounds, VanWart, PI), 20%FTE, (Role in grant: post-doctoral researcher).

Evaluation of a Rapid Diagnostic Test for the Categorization of Acute Respiratory Illness (RADICAL IIA). National Institute of Allergy and Infectious Diseases (NIAID) /Duke University Medical Center. Grant #5UM1AI104681-07, 12/1/18-11/30/19 (Tsalik, PI), \$138,646. (Role in grant: Co-Site PI, Hasbro Children's Hospital)

Machine Learning in Pediatric Sepsis. Summer Research Assistantship in Emergency Medicine. Brown Emergency Medicine, 6/2019-8/2019 (Duffy, PI) \$3500. (Role in grant: Principal Researcher).

Clinical Practice Guideline Reduces Evaluation and Treatment for Febrile Infants 0-56 Days. **Pediatric Emergency Medicine Fellow National Research Presentation Grant.** Brown Emergency Medicine, 04/2019 (Zonfrillo, PI), \$1000 (Role in grant: Principal Researcher, Primary Author).

Attention Deficit Hyperactivity Disorder is Associated with Decreased Physical Activity in School-Aged Children. **Pediatric Emergency Medicine Fellow National Research Presentation Grant.** Brown Emergency Medicine, 11/2018 (Amanullah, PI) \$1000 (Role in grant: Principal Researcher, Primary Author).

Screening for Answers: Familial Perceptions of Microarray Testing and Related Changes in Healthcare Management. **Brown University Summer Research Assistantship,** Brown University, 06/2011-08/2011 (Shur, PI), \$3500.

#### UNIVERSITY TEACHING, ADVISING and MENTORING ROLES\*

2015-2017	<b>Mentor, Alpert Medical School Doctoring Program</b> Brown University Teaching core doctoring skills during weekly supervised clinical experience
2012	<b>Teaching Assistant, "So You Want to Be A Doctor" Course</b> Online Course, Brown University Facilitated coursework for the intensive pre-college summer course in Medicine; lead online discussion forums, assigned/reviewed medical research assignments
2011-2012	<b>Teaching Fellow, IMS-I Medical Humanities Course</b> Alpert Medical School of Brown University Facilitated discussion on ethics, communication and observation

- 2011-2012                    **Pathology Tutor**  
 Alpert Medical School of Brown University  
 Created review materials and lesson plans for review sessions  
 Individual tutoring with first year medical students
- 2011                            **Teaching Assistant, “So You Want to Be A Doctor” Course**  
 Brown University  
 Facilitated coursework for the intensive pre-college summer course  
 in Medicine; mentored high school students on pre-medical course  
 selection and extracurricular involvement
- 2009-2010                    **Teaching Scholar, Howard Hughes Medical Institute**  
 Teaching Fellow for an Introductory Biology course at the Duke  
 Ellington School of the Arts  
 Contributed to an annotated database of pedagogical literature and  
 scholarship.  
 Performed research on the Science of Teaching and Learning  
 (SoTL), titled "The Relationship between Images and Written  
 Context in Student Learning”

HOSPITAL TEACHING, ADVISING and MENTORING ROLES\*

- 2018-Present                    **Instructor, Lifespan Pre-Hospital Provider Simulation  
 Training**  
 Facilitated basic/advanced airway skills training and pediatric  
 critical care simulations
- 2017 - Present                    **Instructor, Department of Emergency Medicine  
 Pediatric Simulation Curriculum for Kent Hospital EM  
 Residents**  
 Lifespan Medical Simulation Center, Brown University  
 Session with approximately 30 Emergency Medicine Residents  
 and Attendings annually
- 2017 - Present                    **Instructor, Department of Emergency Medicine  
 Pediatric Advanced Airway Course**  
 Lifespan Medical Simulation Center, Brown University  
 Session with approximately 10 Emergency Medicine and  
 Pediatrics Residents annually
- 2017 - Present                    **Instructor, Department of Emergency Medicine  
 Pediatric Moderate Sedation Course**

Lifespan Medical Simulation Center, Brown University  
Session with approximately 10 Emergency Medicine and  
Pediatrics Residents annually

2018 – 2020

**Fellow Facilitator, Pediatric Mock Code Curriculum**  
Hasbro Children's Hospital  
Designed and facilitated in-situ monthly pediatric critical care  
simulations with 15-20 pediatric residents, nurses and ancillary  
staff.

2016 – 2020

**Fellow Co-leader, Excellence in Communication and  
Emergency Leadership (ExCEL)**  
Brown University Pediatric Residency Program  
Hasbro Children's Hospital  
Pediatric Morning Report, 1-2 times/month  
Conference for 30 Pediatric Residents, Medical Students, and  
Faculty. The curriculum utilizes a combination of simulation,  
procedural stations, and lectures to reinforce leadership,  
communication and medical management skills.

2015-2017

**Coordinator, Pediatric Residency Support Group**  
Hasbro Children's Hospital  
Facilitated group therapy for PGY-2 and PGY-3 residents

2016-2017

**Resident Leader, Residency Leadership in Medical Education**  
Rhode Island Hospital & Hasbro Children's Hospital  
Designed and implemented morning reports and journal clubs  
focused on medical pedagogy and trainee engagement in teaching  
and learning